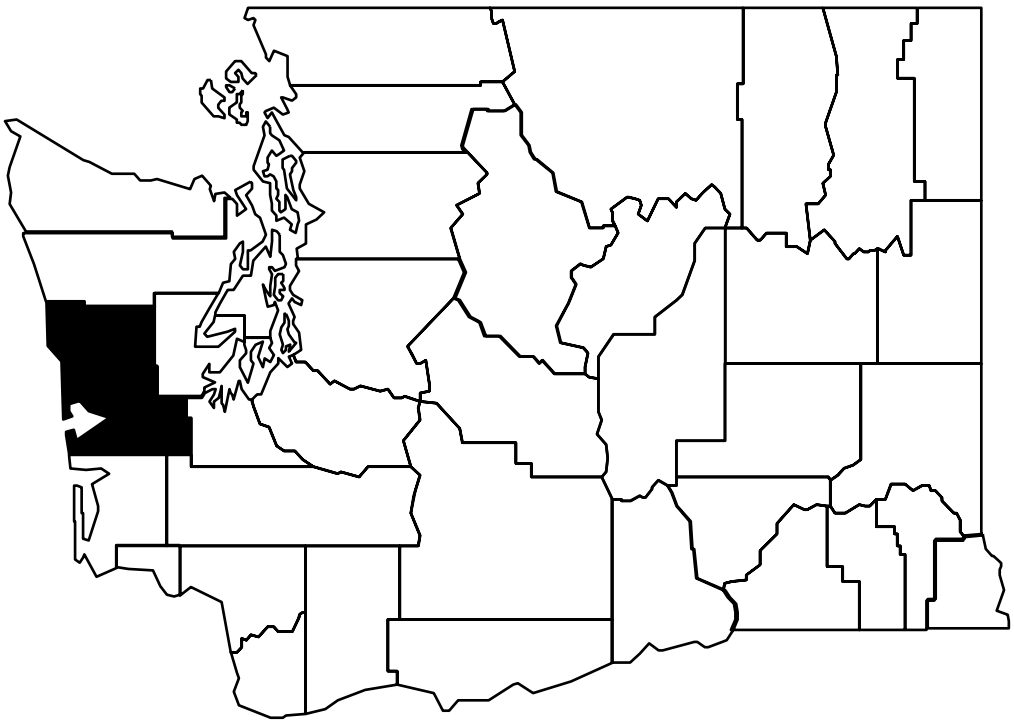
Sexually Transmitted Disease Profile

Grays Harbor County 2006



Washington State Department of Health

DOH 347-431

Summary

This report describes the sexually transmitted disease burden in Grays Harbor County. Primary emphasis is placed on chlamydia and gonorrhea since they are the most frequently reported STDs in Washington State. The 2006 incidence rates by age and sex for gonorrhea and chlamydia are presented. The report concludes with a presentation of which providers in Grays Harbor reported STDs.

Contents

Grays Harbor County STD Disease Trends

Table 1: **Washington State** Reportable Sexually Transmitted Diseases, Grays Harbor County, 2006.

Disease	2005 Grays Harbor County Cases	2006 Grays Harbor County Cases	2006 Grays Harbor County Rate[λ] (per 100,000)	2006 Washington State Rate[λ] (per 100,000)
Chlamydia	164	155	220.2	279.5
Gonorrhea	5	30	42.6	66.4
Early Syphilis	0	0	-	4.1
Congenital Syphilis	0	0	-	0.0 (live births)
Late/Late Latent Syphilis	1	0	-	2.5
Herpes (initial infection)	11	17	24.1	38.4
GI/LGV/Chancroid**	0	0	-	0.0
HIV cases**	2	1		
AIDS cases**	4	1		
TOTAL (excluding HIV/AIDS cases)	**181**	**202**	**286.9**	**390.8**

[λ] *Denominator estimates for the calculation of incidence rates from Washington State Adjusted Population Estimates, OFM, February 2006.*
** Rates cannot be calculated for years with fewer than five cases.*
*** See Appendix A for explanation of disease acronyms.*

In 2006, Grays Harbor County experienced an increase from 2005 in its combined reportable STD cases. With 202 cases of STDs (excluding HIV/AIDS cases[1]) in 2006, the incidence rate for all STDs was 286.9 per 100,000 persons. This is 27% less than the 390.8 per 100,000 combined reportable STD rate for Washington State in 2006. Grays Harbor County reported no cases of congenital syphilis or GI/LGV/Chancroid in 2006.

The chlamydia and gonorrhea cases reports in 2006 for Grays Harbor County were missing the following information:

Date of Birth - 0 Race - 25 Ethnicity - 25
Treatment Date - 4 Treatment - 2

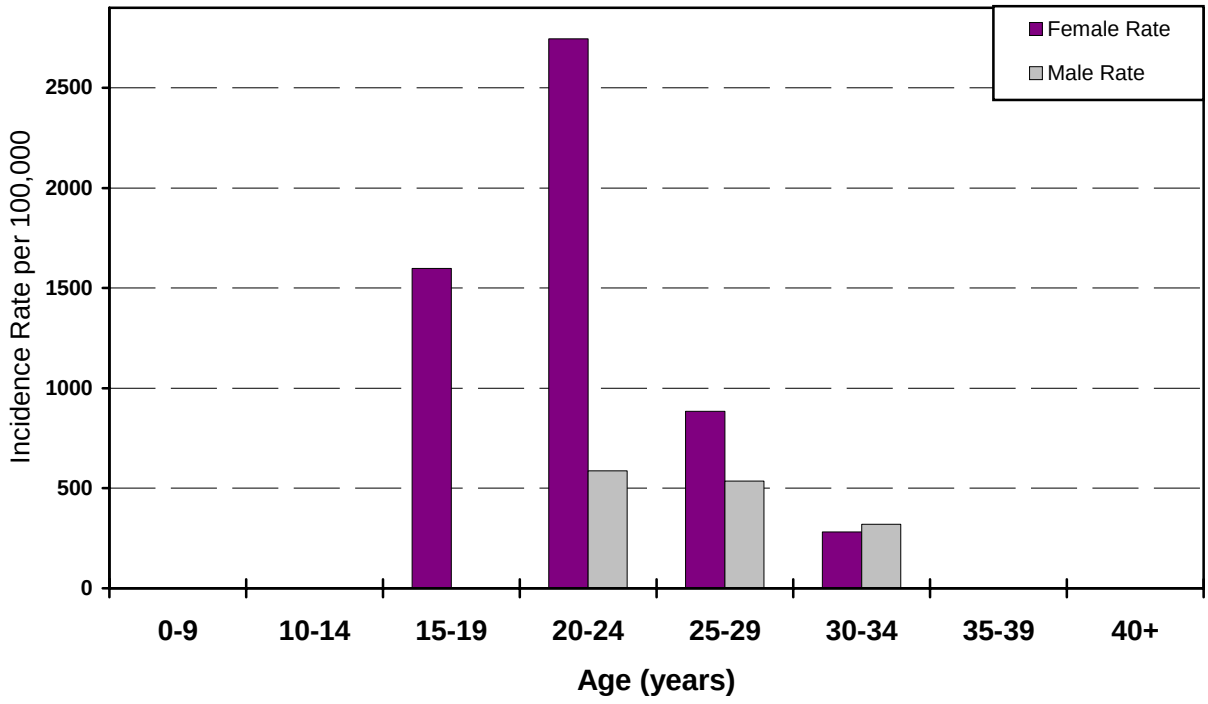
2006 compared to 2005:

- Chlamydia had a 5% decrease in reported cases (155 vs. 164).
- Gonorrhea had a 500% increase in reported cases (30 vs. 5).
- Late/late latent syphilis had a 100% decrease in reported cases (0 vs. 1).
- Initial infection herpes had a 55% increase in reported cases (17 vs. 11).

[1] Complete information on the HIV/AIDS epidemic in Washington can be found in Washington State HIV/AIDS Surveillance Report, Washington State Department of Health, IDRH Assessment Unit.

Chlamydia

Figure 1: **Chlamydia** Incidence Rates by Age and Gender, Grays Harbor County, 2006.[λ]



Female Rate	-	-	1597.5	2744.7	884.5	282.2	*	*
Male Rate	-	-	*	587.3	535.4	319.3	*	*
Female Cases	-	-	41	52	16	5	3	4
Male Cases	-	-	3	12	10	6	1	2

[λ] *Denominator estimates for the calculation of incidence rates from Washington State Adjusted Population Estimates, OFM, February 2006. Incidence rates rounded to the nearest whole number.*

* *Rates cannot be calculated for ages with fewer than five cases.*

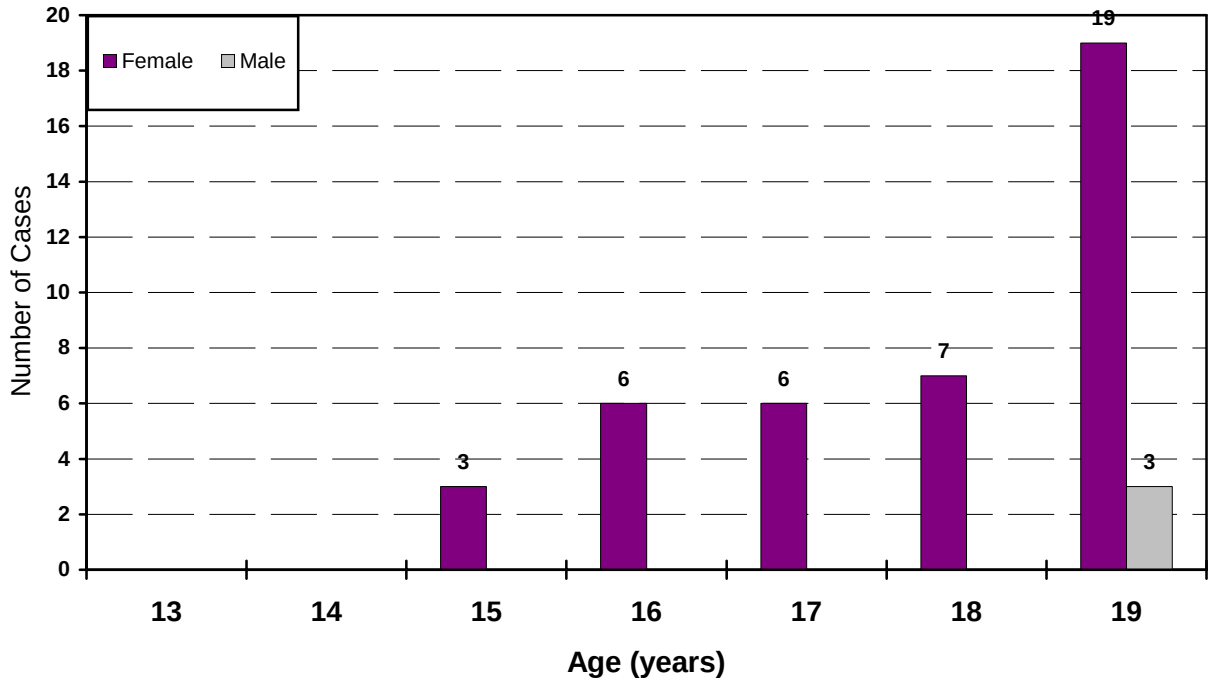
In 2006, the female chlamydia incidence rate was highest among the 20-24 year old age group Grays Harbor County, at 2744.7 cases per 100,000. Chlamydia incidence among females progressively declined with increasing age. Among the men in Grays Harbor County, the 2006 chlamydia incidence rate was highest among 20-24 year olds at 587.3 cases per 100,000 then declined with increasing age.

For females 15 -24 years of age in Grays Harbor County, 93 cases were reported, yielding a rate of 2084.7 per 100,000. Adequate treatment was reported for 97% (90) for this population.

Women are preferentially screened for chlamydia. Because active case-finding is preferentially limited to women, the incidence of chlamydia in men may be under-reported by comparison. Caution should be used in interpreting comparisons of chlamydia rates between genders.

The 2006 STD Treatment Guidelines from CDC recommends that all women diagnosed with chlamydia be re-screened three to four months after treatment. This was suggested because of the high prevalence of chlamydia found in women diagnosed with the disease in the preceding months, presumably as a result of re-infection.

Figure 2: **Chlamydia** Cases by Age (13 - 19) and Gender, Grays Harbor County, 2006.



Repeater Infections - (Persons having more than one infection in a 12-month period.)

Recurrent infection is common and associated with increased risk of pelvic inflammatory disease (PID) and other serious outcomes. Data suggest that young age and incomplete therapy increase the risk for persistent/recurrent infection. Studies also suggest that women's current male sex partners are not receiving treatment for chlamydia and that women are being re-infected by resuming sex with previous (and infected) sex partners. Careful interviewing and prompt, concurrent treatment of all partners is important. People should be coached to ask health care providers for re-screening.

Table 2: **Chlamydia** Repeater Infections, Grays Harbor County, 2006.

	MALE	FEMALE	TOTAL
Reported Cases	34	121	155
Repeaters Identified	0	14	14
% Repeaters	0%	12%	9%

Asymptomatic Infection

STD infections often lack any signs and symptoms. Routine screening and treatment is essential to prevent serious complications that may not appear until long after infection. Screening all sexually active adolescents (19 years and younger) during sports physicals and routine office visits should be done even if symptoms are not present. Screening women and men aged 20-25 is also suggested, particularly those who have new or multiple sex partners. Women who are pregnant, have sex partners infected with chlamydia, have mucopurulent cervicitis or are planning an IUD insertion should also be screened. Careful interviewing and treatment of all partners is important.

Table 3: Reported Cases of **Chlamydia** by Diagnostic Category, Grays Harbor County, 2006.

Diagnosis	Private		Public		Total		Total Cases
	Male	Female	Male	Female	Male	Female	
Asymptomatic	**3**	**57**	**11**	**35**	**14**	**92**	**106**
Symptomatic-Uncomplicated	11	20	7	7	18	27	45
Pelvic Inflammatory Disease	-	1	-	-	-	1	1
Other	2	-	-	-	2	-	2
Unknown	-	1	-	-	-	1	1
TOTAL	**16**	**79**	**18**	**42**	**34**	**121**	**155**

Gonorrhea

In 2006, the Grays Harbor County gonorrhea incidence rate was 42.6 cases per 100,000.

Figure 3: **Gonorrhea** Incidence Rates, by Age and Gender, Grays Harbor County 2006.

	0-9	10-14	15-19	20-24	25-29	30-34	35-39	40+
Female Rate	-	-	*	316.7	*	-	*	*
Male Rate	-	-	*	*	*	*	*	*
Female Cases	-	-	4	6	1	-	1	2
Male Cases	-	-	4	3	3	1	2	3

[λ] *Denominator estimates for the calculation of incidence rates from Washington State Adjusted Population Estimates, OFM, February 2006. Incidence rates rounded to the nearest whole number.*

* *Rates cannot be calculated for years with fewer than five cases.*

In Washington State the reported rate of gonorrhea incidence in 2006 was 66.4/100,000, an increase from the 2005 rate. Statewide, the greatest incidence of disease among both males and females is among 20-24 year olds (247.2/100,000). However, the burden of disease is disproportionately shared across older age groups among males. Males also had a higher overall gonorrhea rate (72.7/100,000) than females (60.6/100,000). A major factor contributing to the differences in the distribution of gonorrhea incidence across different age by gender is a documented outbreak of GC among men who have sex with men (MSM), whose median reported age was 30.

In April 2007, the Centers for Disease Control and Prevention (CDC) made recommendations for the nation that fluoroquinolones should no longer be used as a first line therapy for gonorrhea. See link – http://www.cdc.gov/std/treatment/2006/GonUpdateApril2007.pdf.

Because most gonorrhea infections cause symptoms and prompt individuals to seek medical care, reported cases are considered to be an accurate reflection of true disease incidence in the overall population. Providers in Washington State who reported gonorrhea cases in 2006 indicated that 80% of the men were symptomatic for gonorrhea; 46% of the women were symptomatic.

Table 4: Reported Cases of **Gonorrhea** by Diagnostic Category, Grays Harbor County, 2006.

Diagnosis	Private		Public		Total		Total Cases
	Male	Female	Male	Female	Male	Female	
Asymptomatic	**-**	**4**	**-**	**3**	**-**	**7**	**7**
Symptomatic-Uncomplicated	11	6	4	1	15	7	22
Pelvic Inflammatory Disease	-	-	-	-	-	-	0
Other	1	-	-	-	1	-	0
Unknown	-	-	-	-	-	-	1
TOTAL	**12**	**10**	**4**	**4**	**16**	**14**	**30**

Conclusion

Table 5: Reported Cases of Chlamydia and Gonorrhea by Provider Type, Grays Harbor County, 2006.

Provider Type	Chlamydia			Gonorrhea		
	No. of Providers	No. of Cases	Percent of Total Cases	No. of Providers	No. of Cases	Percent of Total Cases
Alcohol/Substance Abuse	-	-	-	-	-	-
Blood Bank/Plasma Center	-	-	-	-	-	-
Community Health Center	-	-	-	-	-	-
Emergency Care (excl. hosp.)	1	1	1%	-	-	-
Family Planning	3	4	3%	1	2	7%
Health Plan/HMOs	2	2	1%	-	-	-
HIV/AIDS	-	-	-	-	-	-
Hospitals	3	7	5%	4	7	23%
Indian Health	1	4	3%	1	1	3%
Jail/Correction/Detention	-	-	-	-	-	-
Job Corps	-	-	-	-	-	-
Migrant Health	-	-	-	-	-	-
Military	1	1	1%	-	-	-
Neighborhood Health	-	-	-	-	-	-
OB/GYN	3	52	34%	1	2	7%
Other	15	28	18%	7	11	37%
Private Physicians	2	2	1%	-	-	-
Reproductive Health	-	-	-	-	-	-
STD Clinics	1	54	35%	1	7	23%
Student Health	-	-	-	-	-	-
TOTAL	**32**	**155**	**100%**	**15**	**30**	**100%**

In Grays Harbor County, the STD clinic providers reported the highest number of chlamydia cases. These providers reported 35% of the total. OB/GYN providers reported the second highest number of chlamydia cases (34%). Gonorrhea cases were most frequently reported by other providers (37%).

The Infertility Prevention Project (IPP) is a statewide, voluntary Chlamydia and gonorrhea screening program. Federal and state funds provide laboratory testing, medications, data management, technical assistance and free condoms to participating sites. Selective screening criteria, including those detailed in the Asymptomatic Infection paragraph above, are used to prioritize clients for screening. Over 140 facilities participate in the Project, including the following providers in Grays Harbor County:

Table 6: Infertility Prevention Project Chlamydia and Gonorrhea by Provider Type, Grays Harbor County, 2006.

	Chlamydia Tests					
	Male			Female		
	No. of Tests	No. of Pos.	Percent Pos.	No. of Tests	No. of Pos.	Percent Pos.
Family Planning Sites						
Grays Harbor Health Department	73	19	26.0%	727	32	4.4%

	Gonorrhea Tests					
	Male			Female		
	No. of Tests	No. of Pos.	Percent Pos.	No. of Tests	No. of Pos.	Percent Pos.
Family Planning Sites						
Grays Harbor Health Department	73	6	8.2%	664	7	1.1%

Appendix A: Data Sources, Analyses and Limitations

Cases: The number of cases identified and submitted by providers to local health jurisdictions and forwarded to the Washington State Department of Health, Office of Infectious Disease and Reproductive Health, STD/TB Services.

Population: Denominator population estimates for incidence rates are from Washington State Adjusted Population Estimates, Office of Financial Management (OFM), February 2006.

Incidence Rates: Incidence rates are calculated as the number of new episodes of a disease (not persons) in a given year divided by the total population (age and sex appropriate) for that year, expressed as a rate per 100,000. Incidence rates allow comparisons between two or more populations by standardizing the denominator and are the most appropriate statistic to use when investigating differences between groups. Rates should not be calculated for incident case totals fewer than five because the rates are unstable.

Data Reporting: Gonorrhea, chlamydia, syphilis, and herpes (initial infection) are reportable diseases to the local health jurisdictions and forwarded to the Department of Health. To be reported and included in surveillance data, disease definition must be met.

Disease Definitions:

- AIDS - Acquired Immunodeficiency Syndrome is the advanced stage of HIV-disease in humans and is characterized by severe suppression of immune response. Persons with AIDS are at risk for increased susceptibility to opportunistic infections, degradation of major organ systems and eventual death.
- Chancroid - a STD characterized by painful genital ulceration and inflammatory inguinal adenopathy caused by the bacterium *Haemophilus ducreyi*.
- Chlamydia - isolation of *Chlamydia trachomatis* from a clinical specimen by culture or non-culture methods that detect chlamydia antigen or genetic material.
- Gonorrhea - isolation of *Neisseria gonorrhoeae* from a clinical specimen by culture or non-culture methods or observation of Gram-negative intracellular diplococci in urethral or endocervical smears.
- Granuloma Inguinale (GI) - a slowly progressive ulcerative disease of the skin and lymphatics of the genital and perianal area.
- Herpes Simplex (initial infection only) - diagnostic criteria for reporting can be made through clinical observation of typical lesions and/or laboratory confirmation.
- HIV - Human Immunodeficiency Virus is a retrovirus causing HIV disease and AIDS in humans. This pathogen is transmitted from person to person through unprotected sexual contact, sharing of injection equipment and transfusion/transplantation with infected blood or tissue.
- Lymphogranuloma Venereum (LGV) - characterized by genital lesions, suppurative regional lymphadenopathy, or hemorrhagic proctitis, caused by the L1, L2 and L3 serovars of *Chlamydia trachomatis*.

- Syphilis - a complex sexual transmitted disease with a highly variable clinical course. See CDC guidelines for surveillance definition.

The diagnosing practitioner is responsible for providing the case information which includes patient demographics, source of diagnosis, limited clinical information including site of infection and treatment, and date of diagnosis.

Data Strengths: Sexually transmitted disease data may provide more timely information on behavioral trends in the community than diseases with similar modes of transmission particularly HIV/AIDS. There is a high level of participation in the STD surveillance system by private providers of STD services.

Data Limitations: Clinically diagnosed cases of STDs (without laboratory confirmation) may be missed through this surveillance system. Depending upon diagnosing practices, completeness of reporting may vary by source of health care.

Data Biases: Biases could exist in the data due to under-reporting, inability of certain populations to access medical services, error in laboratory reporting, or differential reporting or screening by disease and source of care. However, it is assumed that the number of cases that would fall into these categories is small and normally distributed, thus not significantly impacting the calculated STD rates.

Assumptions: It is assumed that the cases reported from year to year are independent of each other. One violation of this assumption could be if a person who has an STD one year is more likely to have an STD the following year. Also, repeat episodes of the same STD by the same person are not excluded from the numerator count; it is felt that these numbers are not large enough to significantly impact the calculated incidence rates. Finally, we have assumed that all rates follow a chi-square distribution.

Region X IPP screening criteria that are used at the 140 IPP clinics are as follows:

- Sexually active women 24 years and younger;
- Pregnant women;
- Women with mucopurulent cervicitis, cervical friability, or ectopy with inflammation or edema;
- Women with pelvic inflammatory disease (PID);
- Women planning to receive an intrauterine device;
- Women with a symptomatic sex partner;
- Women diagnosed with CT in the last 12 months; and
- Sex partners of persons with chlamydial infection.